Performance Based Logistics (PBL) Road Show

Javelin Lifecycle Contractor Support

18 August 2003

Agenda

- *Weapon System*
- *System Elements*
- *Javelin in Operation Iraqi Freedom*
- *Javelin PBL Support Concept Overview*
- *Javelin PBL Contractor Requirements*
- *Javelin LCCS Program Objectives*
- *What We Are Buying*
- *Go To War*
- *Commercial Transportation Worldwide*
- *JAVTRAK*
- *Operational Readiness Incentive Fee*
- *Depot Partnering*
- *Transition*
- *O&S Cost Savings*

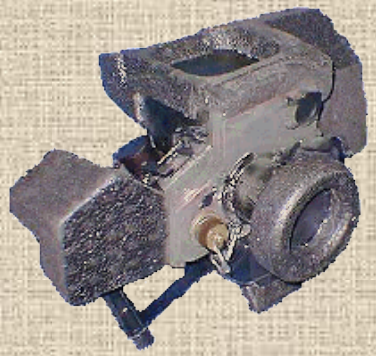
Weapon System

- Replaces Dragon
  - 2.5x range capability
- Defeats all known armor
- Fire and Forget
- Since MS III FRP Decision
  - 93% flight reliability
  - 92% First-Time Gunner Hits (given a reliable round)
- In production since June 1994
- Fielded
  - Airborne ✓
  - Rangers ✓
  - Special Forces ✓
  - Light Infantry ✓
  - Mech Infantry ✓
  - Marines ✓

System Elements

Round

- Disposable launch tube assembly containing missile



Command Launch Unit (CLU)

- Integrated day/thermal sight (LWIR)

Training Devices

- Field Tactical Trainer (FTT)
- Enhanced Producibility Basic Skills Trainer (EPBST)
- Missile Simulation Round (MSR)

CURRENT SUPPORT CONCEPT

•WOODEN ROUND	•27E ORGANIC •CLS/GOVERNMENT DEPOT	•CONTRACTOR LOGISTIC SUPPORT (CLS)

Javelin in Operation Iraqi Freedom

rotects our Combat Troops in the Desert …

"The Marines encountered some resistance … they opened fire with machine guns on an Iraqi T-55 tank and finally destroyed it with a Javelin."

"We pulled back to the ridge line here, we broke out our Javelin missiles, and we fired six missiles and took four tanks with six missile shots. So you could see -- most of them are already done burning."

Javelin in Operation Iraqi Freedom

… and in Urban Combat …

"Marines can fire Javelins from inside buildings without having to worry about the back-blast area."

-- USMC Capt. David Romley

Javelin in Operation Iraqi Freedom

Emerging Results and Feedback

Feedback and System Comments Recorded By Jay Fisher, JMSC Maintenance Technician Supporting Special Forces Javelin Hardware in Theater

Javelin System Successes...

When targets could not be engaged with other munitions, our system became the all-purpose tool to take out threats. This resulted in my hearing more stories about successful engagements of non-standard targets than those of armor encounters which the system is designed primarily for.

1. SF 102 reports that the Northern Offensive was started with two of our rounds being fired almost simultaneously. Two **mud wall and mud roof adobe type buildings** ~ 20x20 ft. were taken out at ranges of 2600 and 2700 meters. Gunners reported no problems with these engagements.

2. Unknown unit reported taking out **T-55 in defilade** at less than 2000 meters. Gunner reported initially repeatedly trying to lock on to the turret but the track gates would expand or jump to some mountains with a lot of temperature delta well behind the target. Gunner then shifted his position by approximately three meters and reengaged the target. Lock on had no problems and the shot was a successful hit. Serial numbers of round and launcher unavailable.

3. SF 102 A and B Co. reported at least eighteen successful **enemy armor** kills. Ranges from 200 meters to 4,000 meters were reported. Some of these were non-combat shots to permanently disable abandoned armored vehicles. Many of these gunners were unavailable for interviews so details are sketchy.

Javelin in Operation Iraqi Freedom

Emerging Results and Feedback

Javelin System Successes (Cont'd)...

4. SF 103 reported a successful engagement of a moving Toyota pickup with a large caliber weapon **mounted in the bed. This vehicle was "obliterated" as one can imagine. Serial numbers of round and launcher unavailable. Launch and impact distances unavailable.**

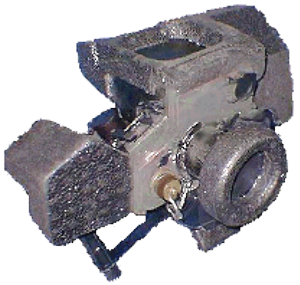
5. SF 103 reported two specific successful engagements. An enemy 120 mm mortar **was firing on SF troops from an unspecified distance (estimation was 2100 to 2400 meters but was never verified). Our system was brought up to engage this target. The gunner reports locking on to a bright spot he thought was the mortar position. He successfully locked on and fired but the target acquired was actually an enemy** bunker **that was an estimated 100 meters behind the mortar position. This bunker was destroyed. The gunner then moved his position laterally and reengaged with a new round. This time the gunner was more selective and could make out the mortar tube and the persons hanging rounds in it, He locked on to the tube and the base of the mortar and was successful in eliminating the numbers of round and launcher incoming fire. All that was left of this position was the mangled legs of the mortar. Serial numbers of round and launcher unavailable. The second round pencil box flex was visible and appeared to be showing "bare copper". This team also reported that the** local Northern fighters were in awe of the capabilities of our system.

Javelin PBL Support Concept Overview

Organizational (Operator):

- Perform PMCS, Run BIT, Replace CLU Battery

No Change For Soldier



Direct Support:

- Run BIT; If External CLU Failure, Remove and replace external CLU items from ASL (MOS 27E) and return CLU to unit. Requisition replacement item for ASL from contractor; If internal CLU failure return unserviceable CLU to depot for repair and issue CLU float to unit.
- CLU Floats

PBL Interfaces with Army Info Systems

Depot:

- Repair CLU
- Supply S

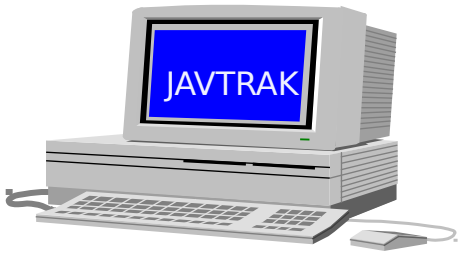
PBL Is Transparent To the User

Javelin PBL Contractor Requirements

- **Maintenance**
  - **CLU Depot Repairs**
  - **Training Device Repairs**
- **Supply**
  - **Free Issue of CLU Spares to Units ASL**
  - **Stock, store, and issue all spares for CLU and Training Devices**
  - **Contractor As the Item Manager**
  - **Standard Government Supply System Used**
- **Software Support**
- **Hardware/Software Tracking Database**
  - **JAVWEB/JAVTRAK**
  - **Available to user community and management**
- **Go-To-War Capability**
- **Transition Plan (NTE Fixed Price Option to Contract For Transition To One or More Follow-on Sources, Either Government or Contractor)**

Javelin Joint Venture Prime Contractor

Raytheon and Lockheed Martin



Javelin LCCS Program Objectives

- **Maintain Operational Readiness**
- **Lifecycle Support for JAVELIN Weapon System During Peacetime and War**
  - **CLU**
  - **Training Devices**
  - **CLU Maintenance Trainer**
  - **Memory Loader Verifier (MLV)**
  - **Containers (Except Round Container)**
  - **Round (External Only)**
- **Support Army, USMC, UK and FMS Hardware**
- **Flexible to Cover Differing Support Concepts, Contingencies, Hardware Modifications**
- **Modernize System Through Routine Support**

What We Are Buying

- 10 Years
  - One Basic Year
  - Nine One Year Options
- FFP/Cost Plus Mix
- Contractor Incentives
  - Operational Readiness Incentive Fee
  - TAT for Training Devices Incentive Fee
  - *Hardware Reliability*
  - Possible Use of Award Term Clause
  - Block Mod Early Completion
- Block Modifications
- Go to War
- Maintenance
- Supply Support
- Stockpile Reliability Program
- Configuration Management
- Product Assurance
- NET
- TPF
- JAVTRAK
- Contractor Owned Spares
- Contractor Control of Transportation
- Depot Partnership
- Transition to Organic Support

Go To War

Contractors Not Required on Battlefield

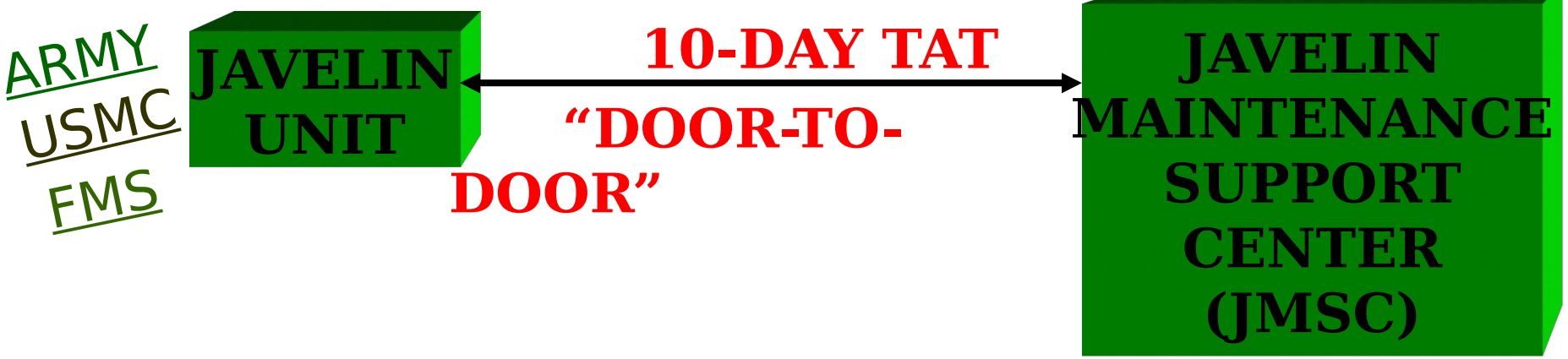
- ***LCCS SOW Para 2.1***

  "Maintain a Go To War Capability to deploy OCONUS To Provide Maintenance, Supply and Software Support"

- ***LCCS Contract Option to actually deploy OCONUS***
- ***Go To War Capability***
  - **Support From OCONUS (OEF)**
    - » **No Contractors Deployed**
    - » **Provided Spares to Deployed Units Via Home Station or Direct**
    - » **Repair & Return Unserviceable Hardware**
  - **Deploy Contractors OCONUS to "Rear Areas" (OIF)**
    - » **Contractors to Romania and Kuwait**
    - » **POC in AOR For Spares Shipments From OCONUS**
    - » **Provided Maintenance Support**
  - **War Wagons**
    - » **2 Reconditioned Pershing Vans "Ready to Roll"**
    - » **Maintenance Van With Test Equipment and Work Space**
    - » **Supply Van With Spares / Repair Parts**
    - » **Provides DS and Limited Depot Maintenance**
    - » **Successfully Deployed to NTC to Support Unit Rotations**
    - » **Never Deployed OCONUS**

War Wagons

Commercial Transportation Worldwide



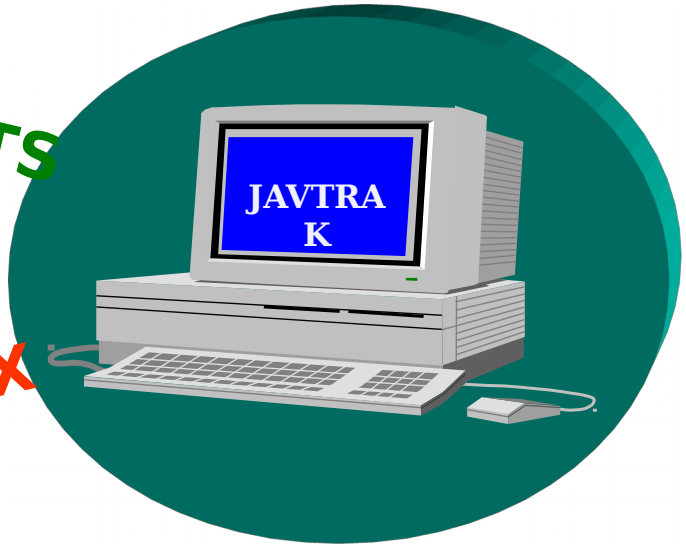
- **Life Cycle Support Contract (LCCS)**
- **10-Day Turn-around-time (TAT) – Includes Round Trip Transportation**
- **Interim Contractor Support (ICS) – 10 Day TAT Did Not Include Transportation**
- **Readiness Enhancer/reduces TAT**
- **Reduces Spares Pipeline = Lower LCCS Cost**

JAVTRAK
The Ultimate Tracking Tool

US ARMY UNITS

USMC UNITS

FMS COUNTRY X



JMSC

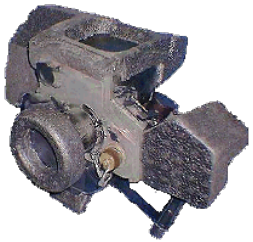
CCWS PMO

FMS COUNTRY Y

- **Track Hardware Location/Status**
- **Track Maintenance History**
- **Track Configuration**
- **Track Reliability**

Operational Readiness Incentive Fee

- **LCCS Performance Metrics**
  - **Javelin Approach**
    - **Reward contractor for exceeding ORR of 95%**
    - **Considers**
      - **NMCS – Non-Mission Capable Supply**
      - **NMCM – Non-Mission Capable Maintenance**



- **TAT for Training Devices**

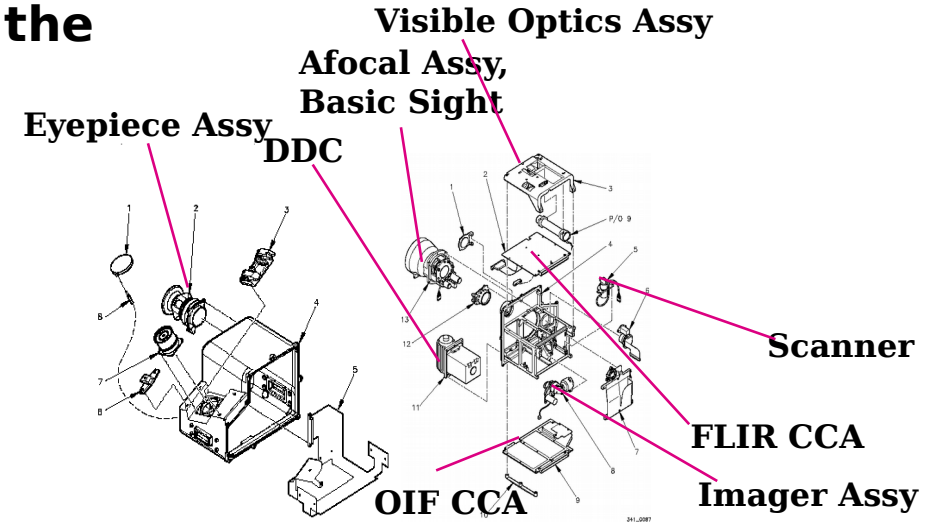
Depot Partnering

Organic Depot Support

- **Title 10 of the United States Code of Federal Law, Section 2208j authority.**

  "*Allows Army installations...to bid as a subcontractor on a DOD solicitation...*"
- **Private sector to utilize existing Army infrastructure assigned sufficient workload to accomplish the repair of Javelin depot reparable hardware.**

Acceptable/Feasible Approach.



Depot Partnering

LCCS

- Contractual requirement of the LCCS contract.
- JV Must assure:
  - Existing Army infrastructure assigned requisite workload.
  - Defined by MOU between JV and the organic depot.
- Depot acting as subcontractor.
  - Organic depot must meet JV programmatic requirements:
    - TAT
    - Quality
- Accommodates surge.

Transition

- ***Contract NTE Options for Transition of Support***
  - **CLU to Government Depot**
  - **Training Devices to Government Contractor**
  - **Contractor Transition Plan Updated Yearly**
  - **Government Owns All Test Equipment, Repair Procedures, JAVTRAK Database, Residual Spares From ICS**
  - **Contractor Owns All Other Spares**
  - **Transition Is Unfunded**
  - **Transition Process Could Take Several Years**
    - » **Would Affect USMC and FMS Customers**

Economic Analysis (EA)

- **Background/Assumptions**
  - Developed by IPT with PMO, AMCOM, AMC, and CEAC
  - Key Assumptions
    - Impact to AWCF infrastructure included by applying surcharge to hardware in all alternatives
      - Contractor – 71% (~~63% fixed, 8% variable~~) of AWCF surcharge → *$29M*
      - Organic – 100% of AWCF surcharge → *$5M*
    - Impact to LEAD infrastructure included in contractor estimates (depot underutilization)
    - Labor rates
      - Contractor - Javelin JV ICS composite loaded labor rate
      - Organic - LEAD loaded labor rate less material
    - The life cycle period covered in the EA is FY 2003 through FY 2027

- **Alternatives**
  - Status quo - Contractor support for both CLU and Training Devices
  - Alternative A - Organic CLU support with Contractor Training Devices support
  - Alternative B - Contractor/Organic CLU support with Contractor Training Devices support (LCCS Options)
  - Excursion - Organic support for both CLU and Training Devices
  - Sensitivity performed on Status quo and Alternatives A & B at JSOR OPTEMPOs (180 hrs)

(FY01 C$M)

	Baseline Budget	Sensitivity	
	190.4	421.5	161.8
	194.4	440.8	194.4
	189.7	419.2	160.4
	213.5		--

LCCS Results in Lowest Cost (17% Savings) and Best Value - Results Validated by CEAC

LCCS/CLS Funded with OM&A

- *Funding Needs to Be Direct to PM*
  - *Contract Must Fund*
  - *OM&A Funding Lines Are Established for ITAS and JAVELIN*
  - *PM Responsible for Life Cycle Management*

- *Current Process Is for OMA (SSTS) to Flow Through AMC*
  - *OMA Funding Will Be Taxed*
  - *Funding (OMA) Not Available in Timely Manner to Fund Contracts*

BACKUP

Contract Type

Repair and Support – Army & USMC (TD's only for USMC)	**Fixed Price with Incentives**
FMS Repair and Support	**FFP or Fixed Price with Incentives**
Increased OPTEMPO or Quantity	**Cost Plus Fixed Fee (CPFF) or FFP**
Modification Installation	**CPFF or FFP**
NET & TPF	**FFP**
Go to War	**CPFF**
Stockpile Reliability Program	**FFP**
Inspect/Rework Deployed Hardware	**CPFF**
Transition to Alternative/Organic Source	**FFP**
Spares Secondary Depot Repairable (SDR)/Consumables	**FFP**
USMC SDR Maintenance (9 SDRs)	**FFP**
4 Board CLU/BST Support	**FFP**
United Kingdom CLS & Spares	**FFP**

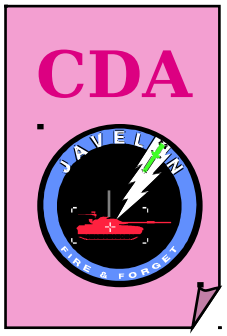
Contract Length

Army & USMC R/R	**1 Year + 9 Annual Options (FY05 - FY13)**
FMS R/R	**1 Year + Annual Options through EOC**
Army Round Surveillance	**1 Year + 9 Annual Options**
Increased OPTEMPO or Quantity	**Annual Options - exercised as required**
Modification Installation months	**10 Annual options to be exercised every 18**
NET & TPF	**Annual Options - exercised as required**
Go to War	**Up to Year with Each Annual Option**
Stockpile Reliability Program	**1 Year + 9 Annual Options**
Inspect/Rework Deployed Hardware	**Annual Options - exercised as required**
Transition to Alternative/ Organic Source exercised only once for 24	**FFP, Annual Option to be month performance**
Spares SDRs/Consumables	**Annual Options - exercised as required**
USMC SDR Maintenance	**Annual Options on per repair basis**
4 Board CLU/BST Support	**Annual Options – exercised as required**
UK FMS Case	**Four Each Five Year Options Beginning Q/A Jul**

Depot Partnering

Core Depot Assessment

- Statutory requirement to assess core capabilities.
  - Set forth in Title 10 U.S.C. § 2464.
- Took into consideration:
  - OPTEMPO Surge (Peacetime to Wartime)
  - JCS contingency scenario
  - Exercising quantities to account for FP I & II entities (i.e., quantity of weapon systems anticipated for use, as well as level of use).
  - Risk Assessment
  - Economic Analysis (Assess Industrial Base Impacts and Risks)
  - System life, special skills, reliability, and breakdown of Javelin unique depot repairable H/W.
- Utilized Core Methodology established by DDMC Jan 96



- **PEO/PM**
- **AMCOM**
  - **CG**
  - **Legal**
  - **Acq. Ctr.**
  - **IMMC**
- **LEAD**
- **CASCOM**
- **AMC**
- **OGC-DA**
- **DCSLOG**
- **AAE**

Results in Organic Depot workload at or greater than 2,973

Army CLU Maintenance Concept

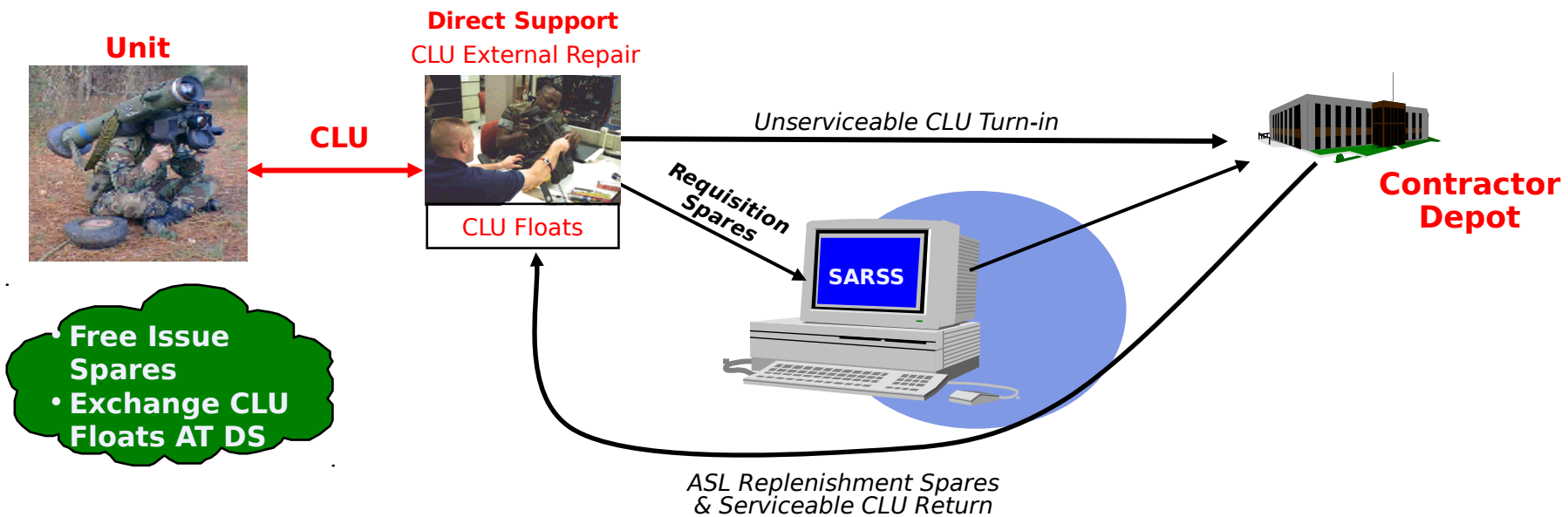
Unit – Perform PMCS; Run BIT; Replace CLU Battery

Direct Support – Run BIT/BITE; If External CLU Failure, Remove and Replace External CLU Items from ASL (MOS 27E) and Return CLU to Unit; Requisition Replacement Item for ASL from Contractor; If Internal CLU Failure, Return Unserviceable CLU to Depot for Repair and Issue CLU Float to Unit

Depot – Repair CLU

"Green Suit"

Contractor

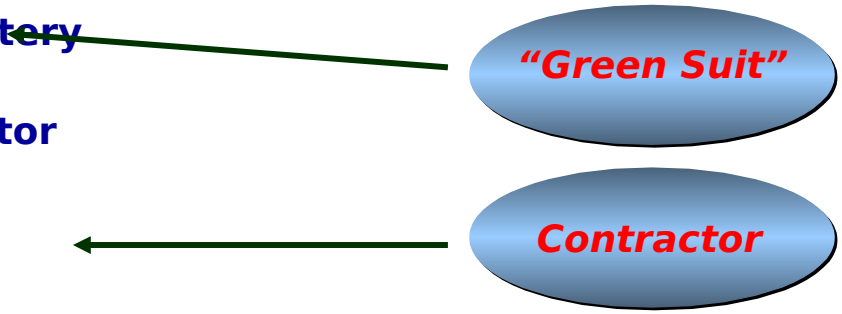


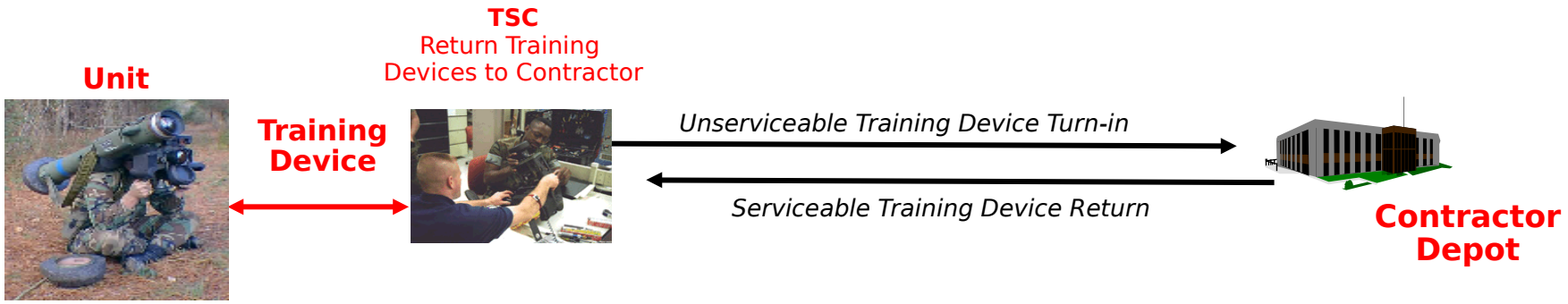
Army Training Devices Maintenance Concept

Unit – Perform PMCS; Recharge CLU Battery

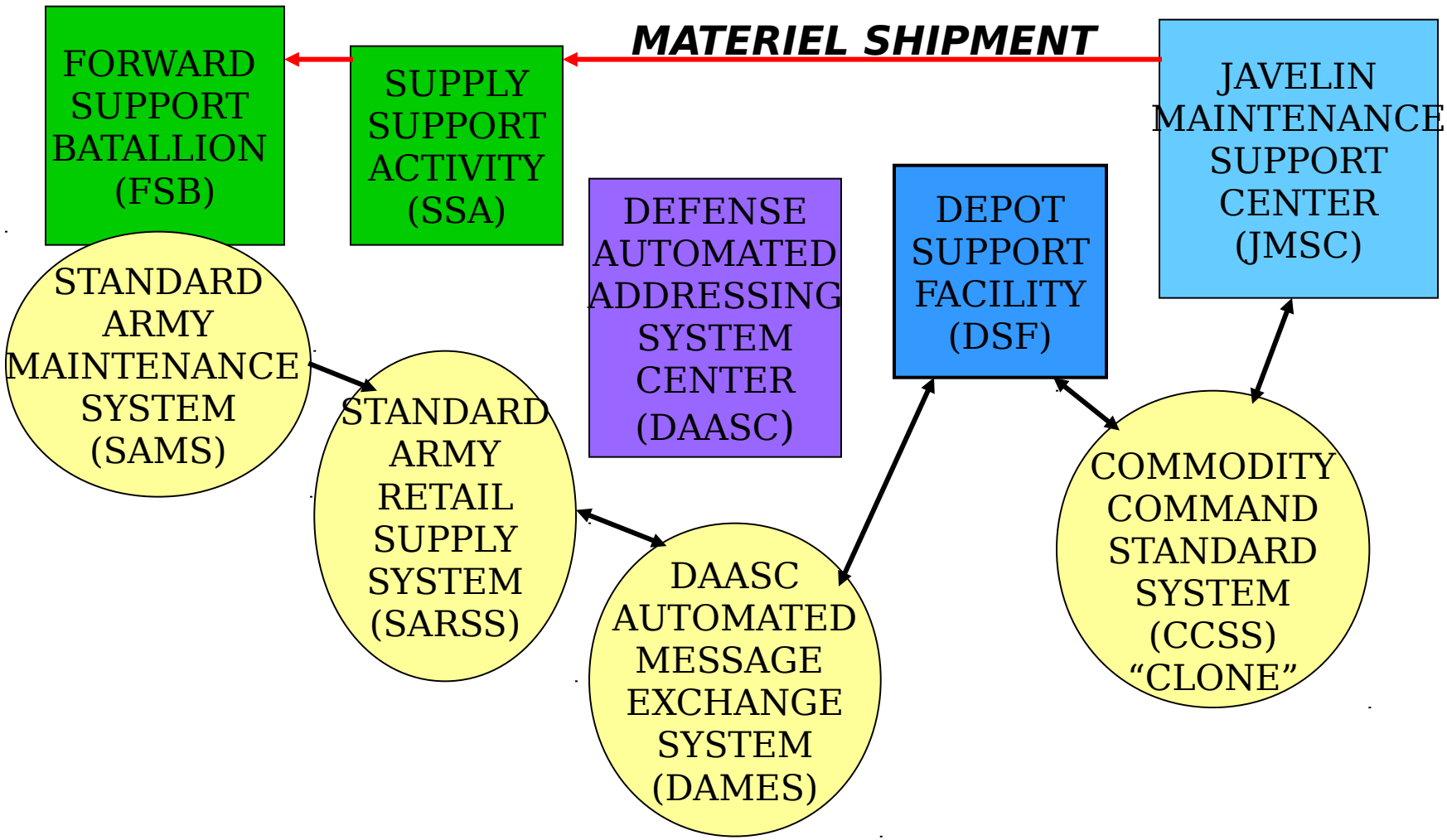
TSC – Return Training Device to Contractor

Depot – Repair Training Devices

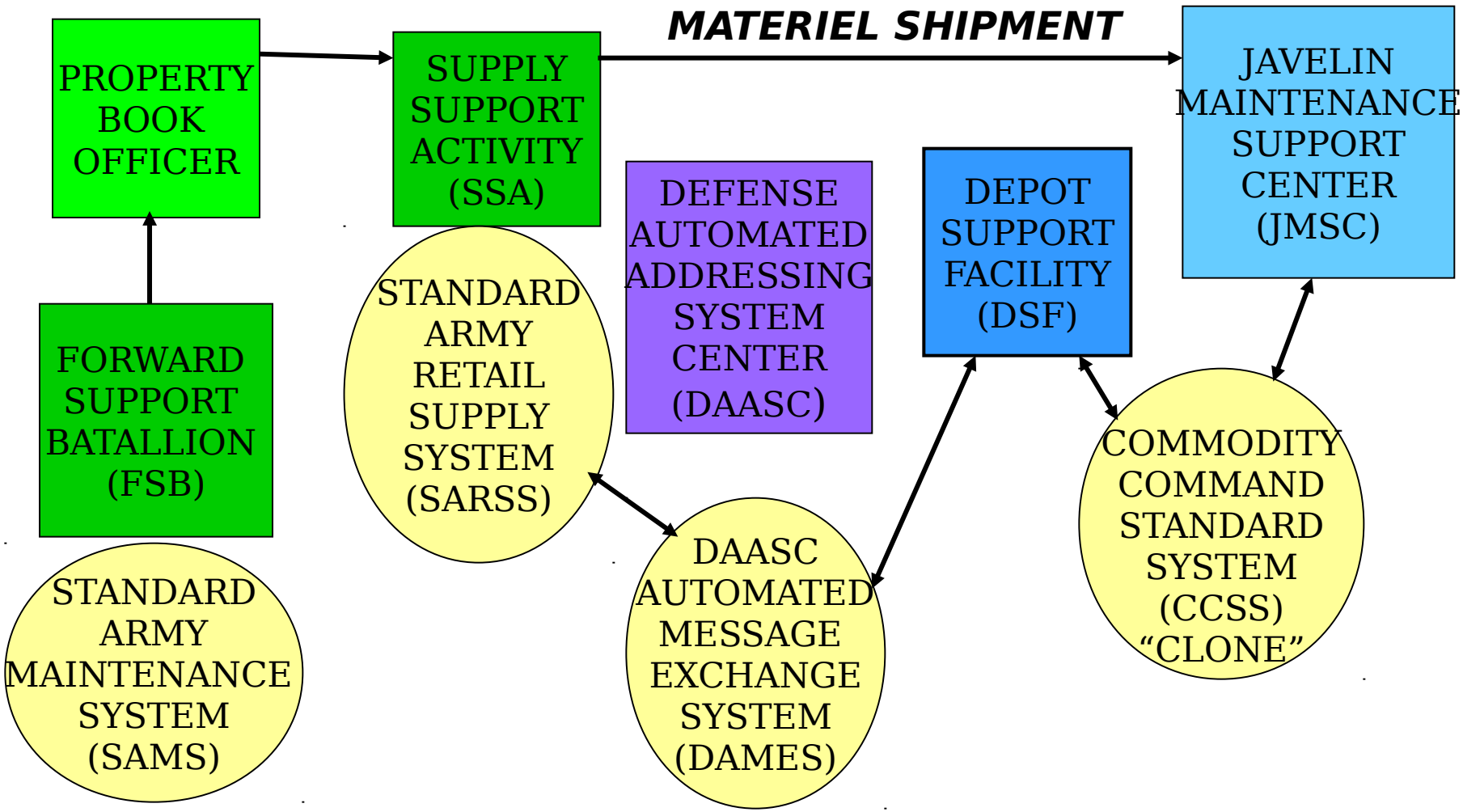




US Army CLU Supply Support Concept


MATERIEL SHIPMENT
FORWARD SUPPORT BATALLION (FSB)
SUPPLY SUPPORT ACTIVITY (SSA)
JAVELIN MAINTENANCE SUPPORT CENTER (JMSC)
DEFENSE AUTOMATED ADDRESSING SYSTEM CENTER (DAASC)
DEPOT SUPPORT FACILITY (DSF)
STANDARD ARMY MAINTENANCE SYSTEM (SAMS)
STANDARD ARMY RETAIL SUPPLY SYSTEM (SARSS)
DAASC AUTOMATED MESSAGE EXCHANGE SYSTEM (DAMES)
COMMODITY COMMAND STANDARD SYSTEM (CCSS) "CLONE"

US Army CLU Supply Support Concept


MATERIEL SHIPMENT
PROPERTY BOOK OFFICER
SUPPLY SUPPORT ACTIVITY (SSA)
JAVELIN MAINTENANCE SUPPORT CENTER (JMSC)
FORWARD SUPPORT BATALLION (FSB)
STANDARD ARMY RETAIL SUPPLY SYSTEM (SARSS)
DEFENSE AUTOMATED ADDRESSING SYSTEM CENTER (DAASC)
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